

Amendments to the Claims

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of Claims:

1-20 (Cancelled).

21. (Currently amended) An RF active deflector for use with orthogonal frequency division multiplex signals, comprising;

an input antenna for receiving an RF input signal;

an output antenna for transmitting an RF signal on substantially the same frequency as said input signal; wherein a feedback path exists between said output antenna and said input antenna;

an amplification path between said input antenna and said output antenna, said amplification path providing substantially linear processing and including a delay; said delay providing a delay period greater than the delay in said feedback path;

means responsive to the signal in the amplification path for producing a plurality of control coefficients;

a transversal filter receiving said signal in said amplification path and controlled by said control coefficient to provide a modified signal; and

a combiner for combining said modified signal with said signal in said amplification path so as to reduce the effect of the feedback.

22. (Previously presented) An RF active deflector according to claim 21, in which said means for producing a plurality of control coefficients comprises:

means for passing through said amplification path a signal having an auto-correlation function which is substantially a delta function; and

a correlator for correlating said signal before being delayed in the delay with the signal after being delayed in the delay to produce a plurality of correlation coefficients.

23. (Previously presented) An RF active deflector according to claim 21, in which said means for producing a plurality of control coefficients comprises:

means for introducing into said amplification path a noise signal having an auto-correlation function which is substantially a delta function; and

a correlator for correlating the signal before the delay with the noise signal to produce a plurality of correlation coefficients.

24. (Previously presented) An RF active deflector according to claim 23, including means for combining said modified signal with said signal in said amplification path before said delay.

25. (Previously presented) An RF active deflector according to claim 21, in which the amplification path includes a variable-gain amplifier.

26. (Previously presented) An RF active deflector according to claim 25, in which the gain of said variable-gain amplifier is initially at a relatively low value and is increased as the feedback is reduced.

27. (Previously presented) An RF active deflector according to claim 23, in which said correlator includes:

means for multiplying one of said signals before the delay and said noise signal by a plurality of incrementally-delayed versions of the other; and

means for selecting and accumulating the resultants of the multiplication for a time duration substantially equal in length to that of a data period of the RF signals, to produce said plurality of correlation coefficients.

28. (Previously presented) An RF active deflector according to claim 27, in which the multiplication is a complex multiplication.

29. (Previously presented) An RF active deflector according to claim 27, further comprising integrating means coupled to the output of the selecting and accumulating

means for integrating the output thereof.

30. (Previously presented) An RF active deflector according to claim 21, in which said delay is a variable delay, and including means for reducing the delay period of said delay from an initial value as the feedback is reduced.

31. (Previously presented) An RF active deflector according to claim 21, in which the active deflector is used in conjunction with at least one broadcast receiver, and the tuning of the active deflector is controlled in response to a remote control device which operates the broadcast receiver.